



Abu Dhabi Occupational Terms

إشتراطات أبوظبي المهنية



## ABU DHABI OCCUPATIONAL TERMS

ADOT 84/ 2023

ش أم 2023 /84

First Edition

الإصدار الأول

Abu Dhabi Occupational Terms for  
Trade Assistant-Electrician

إشتراطات أبوظبي المهنية لمساعد  
كهربائي

S.#	Table of Contents	Pages
1	Amendment Page	2
2	About the Abu Dhabi Quality and Conformity Council	3
3	Foreword	4
4	Working Group	4
5	Purpose	4
6	Occupational Terms	5
7	Terms and definitions	7
8	Performance Criteria	8
9	References	10

## 1. Amendment Page

This Amendment Page is updated and issued with each set of revised and/or new pages of the document to help ensure that each copy of this Abu Dhabi Occupation Term (ADOT) contains a complete record of amendments. This Occupational Term is a live document that can be amended when necessary. QCC can review stakeholder comments in order to review and amend this document; ultimately resulting in an issuance of an updated version, if necessary.

Edition Number	Year of Approval	Number of pages	Sections Changes	Notes
Frist Edition	2014	6	-	New Edition
Second Edition	2023	15	-	Update the Document

## 2. About the Abu Dhabi Quality and Conformity Council

Abu Dhabi Quality and Conformity Council (QCC) is an Abu Dhabi government entity established in accordance with Local Law No. (3) of 2009 to raise the quality of Abu Dhabi's exports and products traded locally. QCC consists of a council of regulators and industry with a mandate to ensure provision of quality infrastructure in line with global standards.

- o QCC's functions are divided into six key areas:
  - Developing standards and specifications
  - Capacity building of metrology systems
  - Strengthening testing infrastructure
  - Launching conformity schemes
  - Protecting consumer interests
  - Ensuring fair trade
- o QCC's key stakeholders include regulatory authorities, consumers, retailers and wholesalers, industry, conformity assessment bodies (CABs) and importers.

QCC supports regulators and government organizations through offering quality and conformity facilities, expertise and resources that allow them to implement products safety and compliance requirements and regulations. Additionally, QCC works towards promoting a culture of quality and protecting the interests of consumers. In doing this, QCC seeks to promote the Emirate's competitiveness to become one of the world's most attractive regions for investments and human capital, and to support the competitiveness of national industries in world markets.

### 3. Foreword

Professional requirements are standards that qualified employees must adhere to perform the work assigned to them with high quality level. Under the leadership of His Highness Sheikh Mohamed bin Zayed Al Nahyan, President of the United Arab Emirates and Ruler of The Emirate of Abu Dhabi, The Government of Abu Dhabi, has invested significantly in the highest levels of professionalism and safety in Abu Dhabi's infrastructure. It was mandatory to encourage the presence of skilled and strong labor to maintain the quality and value of infrastructure in Abu Dhabi in particular, and the United Arab Emirates in general.

### 4. Working Group

The Abu Dhabi Quality & Conformity Council commissioned City & Guilds, in partnership with the International Skills Standards (INSSO), to develop occupational terms for a few key occupations in the Construction Sector.

### 5. Purpose

The QCC, along with relative stakeholders, had developed occupational terms for 21 unique occupations in the construction sector. This was required because of a high dependence on migrant labor to fill key technical roles in the skilled trades and concerns about the productivity of the industry where skills investment is inconsistent. The occupational terms are professional standards that personnel must meet to perform the jobs they are assigned to produce quality outcomes.

## 6. Occupational Terms

No.	Field	Details
1	Occupation (Standard Unit)	Trade Assistant-Electrician
2	Description	<ul style="list-style-type: none"> <li>Outcomes required to establish basic information from building drawings, wiring diagrams and schedules required to complete electrical work tasks.</li> <li>Outcomes required to apply basic fitting and fabrication techniques as they apply in electrical installation work functions. It includes the safe use of hand, fixed and portable power tools; cutting, shaping, joining and fixing using metallic and non-metallic materials; dismantling and assembling equipment; basic mechanical measurement and marking-out and reading drawings/diagrams.</li> <li>Outcomes required to identify and locate components, accessories or materials for electrical installations that are specified in work instructions. It includes recognising components, accessories and materials specified in work instructions using correct industry terminology; locating components, accessories, and materials; and following workplace procedures to obtain components, accessories and materials in an agreed time.</li> <li>Outcomes required to secure and mount supporting accessories /equipment used in low voltage electrical installation work. It includes the safe use of tools, materials, and equipment; the selection and safe application of fixing devices; the safe installation of accessories / equipment for supporting, fixing, and protecting cabling and functional accessories; and notifying Supervisor of completed work activities.</li> <li>outcomes required to provide assistance to terminate cables and cords and their conductors, under supervision, at accessories and current-using devices designed to operate at voltages up to 1,000 V a.c. or 1,500 V d.c. It includes working safely; recognising cable types and applications; selecting appropriate termination accessories; preparing and terminating cables and cords in line with instructions; terminating cable/cord conductors; and notifying Supervisor of completed work activities.</li> </ul>
3	Unit type	<input type="checkbox"/> Knowledge and Skills  <input checked="" type="checkbox"/> Application

No.	Field	Details				
4	Elements	No	Element			
		E1	Follow instructions and procedures for low voltage circuit work.			
		E2	Provide assistance to terminate cables, cords and accessories for low voltage circuits.			
		E3	Carry out checks and maintenance for low voltage circuits.			
		E4	Follow work instructions and procedures for electrical installations.			
		E5	Assemble and secure supporting accessories / equipment for electrical installations.			
		E6	Assemble and secure supporting accessories / equipment for electrical installations			
		E7	Meet health and safety requirements of electrical installations.			
		E8	Obtain components, accessories and materials for electrical installations.			
		E9	Prepare for working with basic electrical components.			
		E10	Disassemble, assemble and fabricate basic electrical components.			
		E11	Tidy up work area and equipment			
		E12	Follow work instructions for using diagrams and schedules.			
		E13	Use diagrams and schedules in work			
5	QF Emirates Level	<input type="checkbox"/> 1	<input checked="" type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5
		<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9	<input type="checkbox"/> 10
6	Function	<input type="checkbox"/> Policy and Strategy QF 9 -10 <input type="checkbox"/> Managing QF 7 - 8 <input type="checkbox"/> Specifying QF 6 - 7 <input type="checkbox"/> Controlling QF 6 <input type="checkbox"/> Maintain capability QF 4 - 6 <input checked="" type="checkbox"/> Performing/Carry out QF 1 – 4				
7	Entry information and prerequisites					

No.	Field	Details	
8	Grading	<b>Application Unit:</b> <input checked="" type="checkbox"/> Competent <input type="checkbox"/> Not Competent	
9	Industry Sector		
10	Developed by	Government Entities	ADQCC
		Private Sector	
11	Endorsement		
12	Frequency of review	Upon Request	
13	Version No.	1	
14	ISCO-88		



## 7. Terms and Definitions

Terms		Definition
8.1	<b>Building diagram</b>	A technical drawing of a structure or building that is drawn in a scale that is proportionate to its real-world dimensions. Building drawings include site plans, floor plans, elevations, and sections. Drawings that provide additional specific/specialist details are known as Coordination Drawings.
8.2	<b>Cable schedule</b>	A cable schedule is a table of information about cables for a particular installation. This may include cables for power, lighting, communication, security, or fire.
8.3	<b>Cross section</b>	A section is a type of building drawing. It represents a vertical plane cut through the structure.
8.4	<b>Elevation</b>	An elevation is a type of building drawing. It is a drawing of the exterior or interior of a building or structure as seen from a horizontal position without dimensional perspective.
8.5	<b>Floor plan</b>	A floor plan is a building drawing. It is a drawing to scale showing a view from above, of the relationships between rooms, spaces and other physical features at one level of a structure.
8.6	<b>Hazard</b>	Any substance, physical effect, or condition with potential to harm people, property, or the environment
8.9	<b>Layout drawing</b>	An approved design or plans to show the way things are arranged.
8.10	<b>Low voltage</b>	An a.c. voltage below 1000V between phases, or below 600V between any phase and earth or, a d.c. voltage below 1500V between conductors, or below 900V between any conductor and earth.
8.11	<b>Wiring diagram</b>	Wiring diagrams show the approximate locations and interconnections of receptacles, lighting, and permanent electrical services in a building or structure
8.12	<b>Isolated</b>	Disconnected from all possible sources of electrical energy by opening of switches, opening or withdrawal of circuit- breakers, removal of fuses, links, connections and the like and rendered incapable of being energised unintentionally. Isolation of refrigerant gas lines.
8.13	<b>Work instructions</b>	Written or verbal description of the work to be undertaken by an individual or work team.
8.14	<b>Electrical regulations</b>	Rules established by the electrical regulator that govern the installation and operation of safe electricity wiring systems in all customers' premises.
8.15	<b>Cable</b>	An insulated conductor with an outer protective covering against external influences.
8.16	<b>Cord</b>	A cord to conduct power to an electrical appliance.
8.17	<b>Terminate</b>	The connection of a cable or cord to any electrical apparatus.

Terms		Definition
8.18	<b>Personal Protective Equipment (PPE)</b>	Items that construction workers can use to protect themselves against hazards. PPE includes but not limited to gloves, safety helmet, eye protection, face protection, foot protection and appropriate clothing.
8.19	<b>Risk</b>	Risk is the product of the measure of the likelihood of occurrence of an undesired event and the potential adverse consequences which this event may have upon: <ul style="list-style-type: none"> <li>• People – injury or harm to physical or psychological health</li> <li>• Environment – water, air, soil, animals, plants, and Social Risk = frequency x consequences</li> </ul>
8.20	<b>Supervisor</b>	The person who has the job to oversee and guide the work or activities of a group of other people

## 8. Performance Criteria

### 8.1 Criteria One: Follow instructions and procedures for low voltage circuit work.

Elements	Definition
1.1	Obtain, clarify and follow work instructions
1.2	Follow occupational health and safety [OHS] procedures including use of PPE and safe use of hand tools and equipment
1.3	Follow procedures for referring non-routine events to Supervisor for directions
1.4	Notify Supervisor of the completion of the work

### 8.2 Criteria Two: Provide assistance to terminate cables, cords and accessories for low voltage circuits.

Elements	Definition
2.1	Follow directions from Supervisor to check the junction box/terminal enclosures and terminal types and to identify the required type and size of cable and conductor termination devices
2.2	Obtain and check for safety and serviceability all tools, materials and testing devices required for terminating cables and cords and report any damage
2.3	Arrange electrical isolation as required in line with supervisors directions and safety and regulatory requirements
2.4	Cut cable/cord ends and strip sheath/insulation with sufficient length to prevent strain on terminations while minimising waste
2.5	Under supervision fit cable glands/retaining devices and secure to ensure cable/cord cannot be pulled out of entry into junction box/ terminal enclosure
2.6	Prepare conductors to suit the type of terminal at which they are to be connected in line with instructions
2.7	Terminate conductors to ensure continuity across the terminal

### 8.3 Criteria three: Carry out checks and maintenance for low voltage circuits.

Elements	Definition
3.1	Confirm the need to test or measure live with Supervisor
3.2	Test terminated cables and cords under supervision
3.3	Carry out routine quality checks in line with work instructions
3.4	Clean and maintain safety of work site in line with established procedures

### 8.4 Criteria Four: Follow work instructions and procedures for electrical installations.

Elements	Definition
4.1	Obtain, clarify and follow work instructions
4.2	Follow occupational health and safety [OHS] procedures including use of PPE and safe use of hand and power tools
4.3	Follow procedures for referring non-routine events to Supervisor for directions
4.4	Notify Supervisor of the completion of the work

### 8.5 Criteria Five: Assemble and secure supporting accessories / equipment for electrical installations

Elements	Definition
5.1	Use fixing devices as directed by the supervisor meeting specifications for suitability for the environment, load to be carried and substratum / structure into which they are to be installed
5.2	As directed by the Supervisor use supporting accessories / equipment to support, fix and protect relevant low voltage cabling and functional accessories
5.3	Install fixing devices in line with work instructions and manufacturer's requirements
5.4	Install supporting accessories/equipment in line with work instructions and safety, regulatory and manufacturer's requirements
5.5	Carry out routine quality checks in line with work instructions

#### 8.6 Criteria Six: Meet health and safety requirements of electrical installations.

Elements	Definition
6.1	Obtain and check for safety and serviceability all tools and equipment needed for installing fixing devices and supporting accessories / equipment and reports any damage
6.2	As directed by the Supervisor arrange electrical isolation where work is within arm's reach of exposed conductive parts, plant or machinery in line with safety and regulatory requirements
6.3	Minimise waste and damage to the surrounding environment or services when carrying out work tasks
6.4	Clean and maintain safety of work site in line with established procedures

#### 8.7 Criteria Seven: Follow work instructions and procedures.

Elements	Definition
7.1	Obtain, confirm and follow work instructions
7.2	Seek further instructions from Supervisor in the event of unplanned happenings or conditions
7.3	Follow workplace safety procedures.
7.4	Notify Supervisor of the completion of the work

#### 8.8 Criteria Eight: Obtain components, accessories and materials for electrical installations.

Elements	Definition
8.1	Recognise components, accessories and materials in line with supervisors instructions
8.2	Locate components, accessories and materials specified in work instructions
8.3	Obtain required components, accessories and materials in line with work instructions
8.4	Confirm that components, accessories or materials conform to work instructions

### 8.9 Criteria Nine: Prepare for working with basic electrical components.

Elements	Definition
9.1	Obtain, clarify and follow work instructions
9.2	Follow occupational health and safety [OHS] procedures including use of PPE and the safe use of hand and power tools
9.3	Obtain and check for safety and serviceability tools, equipment and measuring devices required to carry out disassembly, assembly and /or fabrication work as directed by your supervisor.
9.4	Sharpen cutting tools to suit the materials on which they are to be used
9.5	Collect materials required for work task
9.6	Confirm the need to test or measure live with Supervisor

### 8.10 Criteria Ten: Disassemble, assemble and fabricate basic electrical components.

Elements	Definition
10.1	Arrange electrical isolation as required in line with safety and regulatory requirements and supervisor's instructions
10.2	Help to dismantle and reassemble components in line with Supervisor's instructions and specifications
10.3	Support others to make components used in low voltage electrical installations using dimensions determined from layout drawings and work instructions
10.4	Minimise waste and damage to the surrounding environment or services when disassembling, assembling and / or fabricating components
10.5	Follow procedures for referring non-routine events to immediate Supervisor for directions
10.6	Carry out routine quality checks in line with supervisor's instructions

### 8.11 Criteria Eleven: Tidy up work area and equipment.

Elements	Definition
11.1	Clean and maintain safety of work site in line with established procedures
11.2	Notify Supervisor of the completion of the work

### 8.12 Criteria Twelve: Follow work instructions for using diagrams and schedules.

Elements	Definition
12.1	Obtain, clarify and follow work instructions
12.2	Use the Layout plan based on wiring diagrams and cable schedules in line with the Supervisor's instructions
12.3	Under supervisor's directions identify the dimensions of application work from the basic building diagrams
12.4	Under Supervisor's directions use information from the diagrams and schedules

### 8.13 Criteria Thirteen: Use diagrams and schedules in work

Elements	Definition
13.1	Use the basic building diagrams that are appropriate to the work being undertaken as directed by supervisor
13.2	Use information from the basic building diagrams and schedules in the work in line with instructions from the Supervisor including: -diagram layouts -conventions -common symbols
13.3	Determine location of equipment from the basic building diagrams and schedules for application to work undertaken under supervision
13.4	Use basic information from wiring diagrams of common symbols and conventions
13.5	Use information from cable schedules for application to work undertaken

## 9. References

1. [www.oshad.ae](http://www.oshad.ae)
2. Technical Advisory Report 2013